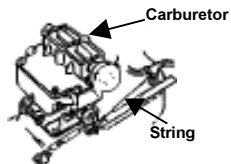


Instructions for Compression Tester

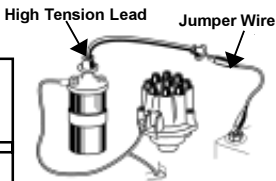
Test Procedure

1. Start Engine and warm to normal operating temperature.
2. Turn engine off
3. Remove and number spark plug wires
4. Loosen spark plugs one turn
5. Clean loose dirt and rust from and around spark plug wells
6. Remove spark plugs and place on clean flat surface in order removed
7. Remove air filter
8. Set carburetor throttle plate to wide open using string.



**Held Open Throttle
Plates**

<p>CAUTION</p> <p>Be careful not to damage linkage or throttle body components.</p>
<p>CAUTION</p> <p>Make sure to return carburetor throttle plates to closed position before starting engine.</p>

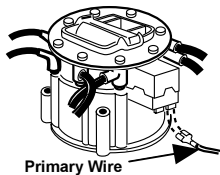


**Ignition Disabling
Procedure**

9. Remove high tension lead from center of distributor and connect to ground.

NOTE: To disable electronic ignition systems, disconnect electronic ignition module or remove primary battery terminal from ignition coil.

NOTE: On GM HEI V-6 and V-8 disconnect primary lead from distributor cap.



**GM HEI Ignition
Disabling Procedure**

NOTE: Engines with 14 mm long reach plugs, use long reach adapter.

CAUTION

Do not use long reach adapter on short reach holes

10. Hand tighten spark plug adapter hose into a spark plug well

CAUTION

Do not use a wrench to attach spark plug adapter hose.

11. Connect spark plug adapter hose to gauge

NOTE: Hose adapter is attached to gauge by pulling up on outer sleeve of quick disconnect on gauge and allowing sleeve to return when hose is inserted.

12. Crank engine until pressure reading stops rising on gauge.

NOTE: Crank engine at least 4 compression strokes.

13. Record compression reading.
14. Press release valve on side of gauge

NOTE. Repeat steps 12 through 14 on the first cylinder

15. Remove gauge from hose.
16. Hand tighten spark plug adapter hose into a spark plug well
17. Remove hose from spark plug well
18. Repeat steps 10 through 18 for the rest of the remaining cylinders.
19. Refer to Test Results.



**Installation of
Compression Gauge**



**Push Release Valve to
Relieve Pressure**

Test Results

Normal Cylinder:

- Gauge needle should travel up-scale on each compression stroke until a peak value is reached.
- All cylinders should have a pressure within vehicle manufacturer's specifications.
- Readings should not vary more than 10% from cylinder to cylinder.

Needle fails to travel up gauge or remains at same value for several strokes then climbs:

- Check for a sticking valve.

Compression reading is alot higher than manufacturer's specifications

- Check for carbon build-up in cylinder.

Reading on 2 adjacent cylinders is 20 pounds (or more) lower than the other cylinders

- Check for a defective head gasket.
- Check for water (coolant) or oil in the 2 cylinders.

Reading are low or vary widely between cylinders

- Pour teaspoon of SAE grade 30 oil into each cylinder and retest
 - If reading increases alot fault may be due to poorly seated or worn piston rings.
 - If reading remains about the same valves and associated components are likely the problem.

Return to Original Configuration

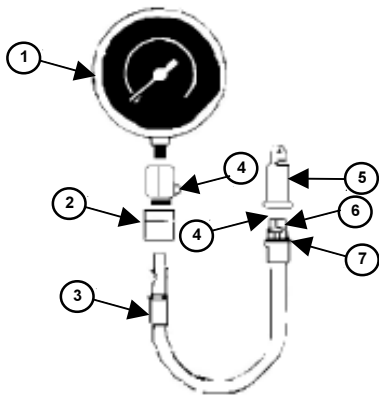
1. Clean, regap and reinstall spark plugs or install new spark plugs.
2. Reconnect all spark plug wires
3. Remove string from carburetor throttle plates.

CAUTION

Make sure throttle plates return to closed position

4. Reconnect ignition system that was disconnected in step 9 of test procedure.

Compression Gauge Repair Parts



Number	Part Number	Description
1	31-255	Compression Gauge
1	400-1335	Replacement Bezel Only
2	180-772	Quick Disconnect Coupling & Valve Assy
3	32-109	Spark Plug Hose Assembly
4	180-775 (2 ea)	Air Valve (High Pressure)
5	400-382	O-ring
6	400-381 (2 ea)	O-ring
7	180-829	Deep Reach Adapter

CAUTION

Do not use automobile tire air valves as a replacement part.